ABSTRACT OF THE DISCLOSURE

The invention applies a segmentation operation to an input image to identify foreground objects of interest, and then applies a shadow removal operation to remove any detected shadows from the foreground segmentation. The shadow removal algorithms can leave holes and bisections in the segmentation map, however, which will then subsequently impact on an object detection step performed using connected component analysis. To get around this problem, the invention applies a conditional morphological dilation operation to the segmentation map to 'grow' the segmented blobs to fill in any holes and bisections, without re-growing shadow pixels in the segmentation. The result is an object detection method and system which is robust to illumination changes causing shadows and/or highlights.